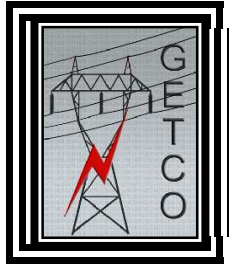


SPECIFICATIONS FOR 12 VOLT SEALED
MAINTENANCE FREE (VRLA) BATTERY



**GUJARAT ENERGY TRANSMISSION CORPORATION
LTD.**

SARADAR PATEL VIDYUT BHAVAN,
RACE COURSE, BARODA – 390 007.

TECHNICAL SPECIFICATIONS

FOR

12V SEALED MAINTENANCE FREE

VRLA BATTERY

GETCO/E/TS-BATT 03104/R1, Dt: 02.02.2013

SPECIFICATIONS FOR 12 VOLT SEALED
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(A) SPECIAL INSTRUCTIONS TO BIDDER

Please read following instructions carefully before submitting your bid.

1. All the drawings, i.e. elevation, side view, plan, cross sectional view etc., in AutoCAD format and manuals in PDF format, for offered item shall be submitted. Also the hard copies as per specification shall be submitted.
2. The bidder shall submit Quality Assurance Plan for manufacturing process and Field Quality Plan with the technical bid.
3. The bidder shall have to submit all the required type test reports for the offered item. ***In case of non-submission of the type test reports with the offer, the bid shall be liable to be rejected.***
4. The bidder must fill up all the point of GTP for offered item/s. Instead of indicating "refer drawing, or as per IS/IEC", the exact value/s must be filled in.
5. All the points other than GTP, which are asked to confirm in technical specifications must be submitted separately with the bid.
6. The bidder is required to impart training in view of manufacture, assembly, erection, operation and maintenance for offered item, at his works, to the person/s identified by GETCO, in the event of an order, free of cost. The cost of logistics will be bear by GETCO.
7. Please note that the evaluation will be carried out on the strength of content of bid only. No further correspondence will be made.
8. The bidder shall bring out all the technical deviation/s only at the specified annexure.
9. The bidder should indicate manufacturing capacity by submitting latest updated certificate of a Chartered Engineer (CE).

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(B) QUALIFYING REQUIREMENT DATA

(For Supply)

Bidder to satisfy all the following requirements.

- 1) The bidder shall be Original Equipment Manufacturer (OEM) / Authorised dealer/supplier of manufacturing firm for the batteries offered. The offered equipments should have been designed, manufactured and tested as per relevant IS/IEC standards with latest amendments. The dealer/supplier shall have to submit valid authorization letter of manufacturer for the offered equipment along with the bid in Manufacturer's Authorization form of Annexure-I attached.
- 2) The minimum requirement of manufacturing capacity of offered type, size and rating of equipment shall be **5 times tender / bid quantity**. The bidder should indicate manufacturing capacity by submitting latest updated certificate of a Chartered Engineer (CE).
- 3) Equipment proposed shall be of similar or higher rating and in service for a minimum period of FIVE (5) years and satisfactory performance certificate in respect of this is to be available and submitted.
- 4) The bidder should clearly indicate the quantity and Single Value Contract executed during last FIVE (5) years, for the offered equipment. Bidder should have executed one single contract during last five years for the quantity equivalent to tender / bid.

The details are to be submitted in following format,

Sr. No	ITEMS SUPPLIED TO	ORDER REFERENCE No. & DATE	ITEMS	QUANTITY	ORDER FULLY EXECUTED YES/NO	STATUS, IF ORDER UNDER EXECUTION	REMARK
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- 5) Equipment/Material offered shall have Type Test Certificates from accredited laboratory (accredited based on ISO/IEC Guide 25 / 17025 or EN 45001 by the National accreditation body of the country where laboratory is located), as per IEC / IS / technical specifications not older than FIVE (5) years and shall have validity till expiry of validity of technical bid.

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(I) INTRODUCTION

Gujarat Energy Transmission Corporation Ltd. has established a VHF Network for communication between 400 kV, 220kV, 132 kV and 66KV sub-stations; Urban Distribution network and Line Patrolling etc. for maintaining continuity of electrical supply to the consumers.

Whenever A. C. supply fails in a sub-station, the VHF set has to be operated on 12V D.C. Battery connected to VHF set power supply which can deliver maximum 6A at 13.2 V D.C. maximum. Thus highly reliable Battery is must for reliable communication to restore and maintain the supply to our consumers in cities and villages.

(II) SPECIFICATIONS

Sealed Maintenance Free batteries shall work as backup supply source for VHF Trans receivers. These batteries shall be manufactured with proven technology. These batteries are expected to be used with SMPS power supply with output terminal voltage of 13.2 volts. The batteries are expected to have prolonged active life.

The above batteries shall be manufactured with flat pasted plates of corrosion resistant lead calcium alloy. The separators shall be of high quality absorbent materials. The container shall be of high strength ABS or equivalent material having high mechanical strength. The battery shall be equipped with special valve to release the gases in case of excessive pressure under abnormal conditions. The valve will not allow any access to the gases under normal conditions.

The bidder shall have to quote the batteries with **75 AH** capacity at 10 hours rate of discharge with end cell voltage at **1.75 V minimum** at 27 °C.

The battery shall have reliable high discharge capacity. It shall be possible to revive the battery after deep discharge.

The battery shall confirm to JIS specification No. C8707 or TEC specifications G/BAT-01/01, Aug 92 or any other equivalent standard.

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The battery shall work satisfactorily under normal climatic conditions. The normal life of the battery is expected to be 5 to 8 years.

It shall be ensured that the performance of the battery is not adversely affected due to tropical atmosphere in the region.

(III) GENERAL REQUIREMENTS

1. The bidder shall give the full technical details, constructional features etc. of the battery offered.
2. The batteries offered must have worked satisfactorily on communication field for not less than five years.
3. The bidder shall enclose operating/maintenance manual for batteries offered along with their offer. The bidder shall provide detailed charging and discharging and commissioning procedure.
4. The bidder shall have full fledged testing facility for the batteries offered.
5. The bidder must have supplied similar batteries to power utility organisations such as Electricity Boards, NTPC, NPC or any other such organisation.
6. The bidder may submit any alternative product with full details suitable for above works.

(IV) TYPE TEST REPORTS:

The Bidder shall have to submit following valid Type test reports. The offer without Valid Type test reports *shall be liable to be rejected.*

1. Verification of construction requirements.
2. Verification of marking and packing
3. Verification of dimensions.
4. Test for capacity.
5. Test for loss of capacity on storage.
6. Endurance test.
7. Ampere hour and Watt hour efficiency tests.

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8. Test for voltages during discharge.

(IV) SCOPE OF SUPPLY :

1. 12-volt, **75AH** monoblock sealed maintenance free (VRLA) battery.
2. Any other accessories required for maintenance /commissioning.
3. **Double PVC, stranded, copper 15mm² battery cable for + Ve & - Ve lead of 3 Mtr. Length each with necessary lugs shall be provided.**
3. Instructions & Maintenance Manuals.
4. Good quality **Digital** multimeter for measurement of battery voltage.

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Annexure-I

(On Original Letter Head of Manufacturing Company)

Manufacturer's Authorization Form

Date:

To,

The Chief Engineer (Project)

Gujarat Energy transmission Corporation Ltd,

Sardar patel Vidyut Bhavan,

Racecourse, Vadodara - 390007

(Gujarat) India

Sub : Manufacturer's Authorization Letter

Ref. No: Tender No. *(Tender No to be mentioned)*

Dear Sir,

We M/s *(Manufacturing Firm Name to be mentioned)* who are official manufacturer of *(Product Model Name /Number to be mentioned)* having factories at *(Manufacturing Unit Address to be mentioned)* do hereby authorize M/s *(Authorized Party Name and Address to be mentioned)* to submit a bid, and sign the contract with you for the supply of Materials / equipment manufactured by us against the tender specification of tender No. *(Tender No to be mentioned)*

No company or firm or individual other than *(Authorized Party Name to be mentioned)* are authorized to bid, and conclude the contract in regard to this business against this specific tender no: *(Tender No to be mentioned)*

We hereby undertake responsibilities and extend our support during warranty period and thereafter sales service support for *(12V sealed Maintenance free VRLA battery Model Name / Number to be mentioned)* quoted and offered by the above firm against tender no: *(Tender No to be mentioned)*.

We also agree to bind with all the terms & condition of tender no: *(Tender No to be mentioned)*

Thanking you,

Yours faithfully,

For **(Manufacturer Name)**

(Person Name)

(Designation)

Seal & Sign of Manufacturer

Place:

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GUARANTEED TECHNICAL PARTICULARS

Sr.No.	Particulars	Details of Battery offered
1.	Name and Address of Manufacturer	
2.	Type and Model No.	
3.	Applicable Standard	
4.	Dimensions of each cell L B H Weight	
5.	Capacity of battery at 10Hr rate	
6.	Material of Container	
7.	The type and material of separator	
8.	The material of positive plate	
9.	The material of negative plate	
10.	Quantity and specific gravity of electrolyte per battery	
11.	Open circuit terminal voltage	
12.	Terminal voltage when battery is fully discharged	
13.	Charging rate	
	a. Nominal charging rate in Amp.	
	b. Starting charging rate in Amp.	
	c. Finishing charging rate in Amp.	
	d. Trickle charging rate in Amp.	
	e. Discharge charging rate in Amp.	
14.	Maximum numbers of charge/discharge cycles required to reach rated capacity	
15.	Recommended maximum period of storage before the first charge.	
16.	Internal resistance of the cell at full charged condition.	
17.	Type of vent and safety.	
18.	Type of terminals.	
19.	Expected average life of the battery offered.	
20.	Float charge voltage.	
21.	Boost charge voltage.	

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SCHEDULE OF REQUIREMENT

Sr. No.	Description	Quantity
1.	12 Volt, 75 AH Monoblock VRLA Sealed Maintenance Free Battery with Accessories.	



Dated: 08.09.2020

TTR validity amendment-1

(Addendum to Technical Specification for validity of type test reports for major electrical equipments)

Sr. No.	Name of test/ Equipment	Type test reports validity (In Years)
i.	On Line Tap Changer (OLTC)	10
ii.	Power Transf. Bushing/ Reactor Bushing	7
iii.	Transformer/reactor fittings and accessories.	10
iv.	Circuit Breaker	10
v.	Isolators	10
vi.	Lightning Arrestors	10
vii.	Wave Trap	10
viii.	Instrument Transformer	7
ix.	Low Voltage (LV) & Medium Voltage (MV) Switchgear	10
x.	Cable & associated joints	10
xi.	Capacitors	10
xii.	Energy Meters [including smart meters & Availability Based Tariff (ABT) meters]	5
xiii.	Conductors & earth wire	10
xiv.	Insulators(Porcelain/ Glass)	10
xv.	Composite Insulators	5
xvi.	Power Line Carrier Communication (PLCC)/Fibre Optic (FO) cable/Optical Ground Wire (OPGW)	5
xvii.	Terminal connectors of all major equipments including transformers	10

Note: Type test reports shall be valid as on the last date of submission of bid.



Dated: 08.09.2020

TTR validity amendment-2

(Addendum to Technical Specification for validity of type test reports of *all the equipments*)

The validity of type test reports to be submitted with technical bid shall be considered as per following:

“Type test reports shall be valid as on the last date of submission of bid”